BICYCLE FRAME WITH REAR PASSIVE SUSPENSION

ABSTRACT OF THE DISCLOSURE

A bicycle frame (10) having a rear passive suspension system configured to elastically deflect predominantly in only the vertical direction under normal cycling loads so as to better isolate the rider from road-surface irregularities and roughness, while simultaneously maintaining or improving rigidity in other directions so as to preserve or improve handling. The frame (10) has a pair of upper chain stays (18) that control the rear wheel motion rigidly in five of the six degrees of freedom with stiffness comparable to existing road, cyclocross, hybrid, city, or hardtail mountain bicycle designs, while simultaneously allowing deflection of the tubular members and a significant amount of vertical movement of the rear wheel for ride compliance in order to improve comfort, handling, and safety.